

Florida Keys National Marine Sanctuary Advisory Council

15 October, 2002
Marathon Garden Club

FINAL MINUTES

Members Present

Wayne Blevins	Duncan Mathewson
Fran Decker	Martin Moe
Richard Grathwohl	Ken Nedimyer
Debra Harrison	George Neugent
David Hawtof	Bruce Popham
Tony Iarocci	Anita Schwessinger
Don Kincaid	Deborah Shaw
Nancy Klingener	

Alternates Present

Greg DiDomenico
Jody Thomas

Call to Order

Chair Neugent called the meeting to order at 9:11 a.m.

Approval of Minutes/Adoption of Agenda

Dr. Shaw requested that the Minutes be amended on page 5 to reflect her position that only “the mini-season is a system that is broken” and not the whole recreational lobster season. Mr. Blevins requested that the Minutes on page 2 include the request for a response within 30 days from National Marine Fisheries Service to a letter from the Council to be forwarded by Mr. Causey. After discussion, it was agreed to send a follow-up letter in the event of not receiving a response from Dr. Hogarth within the time-frame. The amended Minutes were approved on motion. Chair Neugent moved John Hunt’s report to the end of the section without objection. The Agenda was adopted as amended.

Doug Cooper

Billy Causey reported the tragic death on October 7, 2002 of a member of the Lower Keys staff in a hit and run accident.

Fritz Wettstein said that Doug Cooper, a 28 year-old biology major from the University of Southern Mississippi, had been working on a monitoring program in the Tortugas Ecological Reserve, which he loved, for the Mooring Buoy Program at the time of his death. His funeral service was held in his hometown of Pittsburg, MO.

Nancy Klingener expressed condolences to the Lower Keys staff and moved that the Council recommend that a reef be named in the Tortugas in Doug’s honor. Debra Harrison seconded the motion, which was approved on voice vote.

Sanctuary Superintendent's Report - Billy Causey (FKNMS)

Mr. Causey announced the appointment of Lt. Robert Kamphaus of the NOAA Corps to the position of Lower Keys Assistant Manager, starting September 10, 2002. He said that at the October meeting of the Coral Reef Task Force in Puerto Rico, also attended by Kacky Andrews, the recent bleaching of reefs in Hawaii and Australia was reported and that the issue of climate change is now global. He mentioned that Harold Hudson has deployed another thermic tube, that John Halas and Amy Massey have returned from assisting with the implementation and installation of a number of mooring buoys in Vietnam, that Ivy Kelley and her staff hosted a Coral Reef Classroom curriculum development workshop and that the Education staff hosted a booth on behalf of the Sanctuary at the annual Florida Association of Science Teachers conference in Sarasota. Mr. Causey reported on the recent inter-agency meeting in Key West concerning the Navy's proposal to dredge the harbor and ship channel and announced that the Large Vessel Working Group, organized by Fritz Wettstein will be meeting in Key West on October 24, 2002. He mentioned the semi-annual fish count on the Adolphus Busch and the Florida Keys Birding and Wildlife Festival that was just held.

Public Comment

Russ Rector spoke about an apparent problem with letters written by the Council. He recommended that a letter sent by the Council to the Board of County Commissioners of Monroe County based on a motion made by Mr. Nedimyer at the August 20, 2002 meeting be rescinded on the grounds that it was out of order, inappropriate and unfair. He drew Council members' attention to a 1997 document "Draft Release of Stranding Marine Mammals to the Wild" prepared by the stranding community at a meeting in Miami and said that the National Marine Fisheries Service will not make the document public. He again asked the Council to rescind the letter.

Jody Thomas of The Nature Conservancy gave an update on the waste water funding situation. She said that although the President's Budget did not contain any money for waste water improvements this year, increased effort on the part of the Army Corps has resulted in an emergency appropriation of \$500,000 for use by local governments to keep the process moving forward. A meeting with Representative Sorensen is scheduled for after the congressional year. She noted that the Florida Bay Watch program that evaluated nutrients in nearshore waters has been closed and replaced with a program entitled Florida Keys Watch which will test for enterococci bacteria in canals. There will be a press release in December.

Discussion followed concerning Mr. Rector's comments, during which Commissioner Neugent said that the Monroe County Board of Commissioners is not willing to get involved with marine mammal stranding issues.

Florida Department of Environmental Protection Report - Kacky Andrews (FDEP)

Ms. Andrews reported on the presentations given to the Governor and Cabinet in August by Fritz Wettstein on the annual review and Billy Causey on the status of the five year management plan. She mentioned that Nancy Klingener, representing the Council submitted the resolution passed at the last meeting, and that David White of The Ocean

Conservancy presented an award to the Governor and Cabinet in recognition of their commitment to the Sanctuary. She listed the main focus areas adopted for action by the Coral Reef Task Force at the meeting in Puerto Rico: first, land-based sources of pollution; second, over-fishing; third, recreational over-use, or mis-use and fourth, disease and climate change. Ms. Andrews mentioned that Lignumvitae Key State Park, managed by Pat Wells, was recognized by the Council for Sustainable Florida for the contribution to Florida's long-term sustainability, due to the active management plan adopted by Park staff. She noted that a review conducted by the National Science Foundation praised the thoroughness of State and Federal managers in developing a comprehensive plan to capture and store water for the Everglades ecosystem. She described other Department inter-agency projects in the Keys, including a boat grounding restoration project off Boca Chica with the Corps, sewer pipe replacement with the Navy and support for the City of Key West in coping with stormwater problems.

Sanctuary Enforcement Report - Lt. Bob Burns

Lt. Burns reported that Officer Greg Stanley has been promoted to the rank of Lieutenant and has been relocated to Fort Myers. Mr. Causey added that an 800 foot container ship was approached by the Coast Guard as it lay at anchor in the No-Anchor area of Tortugas Ecological Reserve and made to weigh anchor and move on. The Sanctuary Damage Assessment team is evaluating the damage caused by a 10 ton anchor in 72 feet of water.

Florida Fish & Wildlife Conservation Commission Report - John Hunt (FMRI)

Mr. Hunt presented the attached report, highlighting the ballyhoo issue, the Artificial Reef Advisory Board, the trap retrieval issue and the Commission meeting from November 20-22 at Hawk's Cay Resort. He clarified for Chair Neugent that FWC is considering a suite of options for a limited entry program for the ballyhoo fishery.

Mosquito Control in Florida

Fritz Wettstein introduced Alex Cordero of the Florida Department of Environmental Protection (FDEP), the panel moderator, and said that the reason for this educational panel was to address concerns over how to control mosquitoes in an environmentally sensitive area. Panelists introduced themselves, and Mr. Cordero gave the attached Power Point presentation "Mosquito Control in Florida", particularly detailing the regulatory background to mosquito control.

Dr. Lisa Conti of the Florida Department of Health gave the attached Power Point presentation "Arboviruses in the Sunshine State: Year two of West Nile in Florida". Questions from Council members concerned incidence of West Nile virus in seabirds and potential vectors for the virus.

Dr. Mike Shirley (FDEP) with Rookery Bay National Estuarine Research Reserve gave a slide presentation "Mosquito Control and the Marine Environment". He said that the major goal of his research is finding out how to conduct mosquito control and reduce non-target effects. He described experiments conducted tracking fiddler crab populations in a mangrove area over time in the presence and absence of neurotoxins delivered by mosquito control aircraft. He discussed the importance of tree canopies, wind direction and nozzle technology to control droplet size. He concluded that smaller particle size

targets airborne mosquitoes more efficiently and causes less mortality to other arthropods on the ground. Questions concerned the efficacy of larvicides on saltmarsh mosquitoes, potential effects of adulticides on amphibians and birds, and special consideration that EPA might give to the Florida Keys, given the unique situation of many small islands within a National Marine Sanctuary, which provides nursery grounds for the larval stages of many important marine species.

Dr. Chuck McKenney (EPA) from the Gulf Breeze facility gave the attached Power Point presentation “Sublethal Responses of Estuarine Crustaceans to Chronic Pesticide Exposure”. Questions concerned chemistry and developmental and reproductive arrest as a consequence of pesticide exposure.

Dr. Gary Rand of Florida International University gave the attached overhead slide presentation “Risk Assessment and Relative Toxicity of Mosquito Control”. He concluded that it is an error to conduct toxicity tests without taking into consideration exposure information.

Mr. Ed Fussell of the Florida Keys Mosquito Control District reported on recent changes in the District, with the addition of entomologists to the staff, an increase in staff and modernization of equipment and methods. He noted that the main emphasis is on locating mosquito breeding hotspots and applying the larvicide Bti which is a naturally occurring bacterium that specifically targets saltmarsh mosquito larvae on the ground. He said that adulticiding from aircraft is only used to control influxes of mosquitoes from the Everglades into the Upper Keys and from refuge islands into the Lower Keys. He introduced Dr. George O’Meara from the Medical Entomology laboratory at Vero Beach.

Dr. O’ Meara described work he has conducted spanning 30 years in the Keys and Florida on the biology of saltmarsh mosquito species. He observed that many species do not need a blood meal in order to breed; it just makes them more fertile. Despite this, he said that behavioral interventions in the field and not genetic modifications are the only viable form of mosquito control.

Mike Spoto with the Mosquito Control District said that the District is equipping all vehicles and aircraft with the AVL system (Automatic Vehicle locating system) as well as GPS so that everything can be recorded and located, including spray emissions and sites on the ground. The goal is to be able to specify treatment sites, feed that information into the aircraft or vehicle and treat them with precision.

Josh Vlach, entomologist with the District, illustrated how a reduction of adulticiding is being achieved, through a marking and trapping project around Big Pine and No Name Keys in conjunction with the U.S. Fish & Wildlife Service.

Phil Frank of the U.S. Fish & Wildlife Service said that the agency has a process called Inner Service Section 7 that has to be undertaken before mosquito control can go into the back country, which entails a biological risk assessment. He indicated that the result is likely to be a compromise with the District of an increase of larviciding in the back

country in exchange for a significant reduction of the application of organophosphates on the bigger Keys.

Mr. Fussell clarified that larviciding can be done in smaller areas than adulticiding, to greater effect, and with less impact on the environment. He said that the Florida Keys Mosquito Control District is the only district that operates entirely within a National Marine Sanctuary and that the District is acutely aware of the sensitivity of the situation.

Ms. Harrison expressed concern about mosquito control entering the wildlife refuges with undetermined consequences for non-target organisms. She said the responsibility of the Sanctuary Advisory Council is primarily to ensure the protection of very critical resources. Mr. Blevins expressed concern over the accumulation of poisons in the environment over the long term. Dr. O'Meara noted that there is residual copper and arsenic in soils as a result of obsolescent pesticides. Dr. Shaw observed that previously inexplicable amounts of arsenic show up in tests of marl from the Keys. Ms. Klingener asked about concentrations of substances up the food chain, and whether or not any studies on the impact of these chemicals on corals have been conducted. Mr. Moe asked whether any research has been conducted on other invertebrates, particularly copepods. Dr. McKenney indicated that the effects are likely to be sublethal, affecting reproduction and development. After further discussion, Chair Neugent invited Dr. Erich Mueller of Mote Marine Laboratory to contribute to the discussion.

Dr. Mueller cited the results of an EPA Region 4 Special Study conducted in Key Largo after application of the adulticide DIBROM. It was found that a breakdown product DBP is more toxic than the pesticide itself, and that traces were found ebbing out of canal systems at low tide into nearshore waters. He said that Dr. Jane Hawkrigde of Mote is conducting several studies on the effects of a variety of chemicals, not just pesticides, on corals and that these chemicals have an effect at far lower concentrations than current science would have predicted.

Other questions and comments concerned the prevalence of mosquitoes in the Keys in the past, diseases lethal to humans carried by mosquitoes, the efficacy of mosquito magnets and biological controls, principally the fish *Gambusia*.

Assessment of Marine Reserve Impacts on the Florida Keys Multispecies Coral Reef Fishery and Benthic Habitats

Dr. Brian Keller said that the panel, comprised of scientists involved in monitoring programs specifically designed to look at no-take zones in the Sanctuary, participated in an expedition earlier this summer that went to several places at the same time collecting different types of data from the benthic communities, reef fish populations and lobster populations, and that this expedition is a unique starting point to look at what is being learned after many years of monitoring.

Dr. Jerry Ault of the Rosenstiel School of Marine and Atmospheric Science gave an introductory overview on behalf of the panel in the attached Power Point presentation "Assessment of Marine Reserve Impacts on the Florida Keys Multispecies Coral Reef

Fishery and Benthic Habitats”.

Dr. Steven Miller of the Center for Marine Science, UNCW, gave the attached Power Point presentation “Coral Reef and Hard Bottom Communities in the Florida Keys National Marine Sanctuary”.

Dr. Rod Bertelsen of the Florida Marine Research Institute gave the attached Power Point presentation “Spiny Lobster Research in the Florida Keys National Marine Sanctuary”.

Dr. Jim Bohnsack of the National Marine Fisheries Service gave the attached Power Point presentation “Reserve Responses: Florida Keys National Marine Sanctuary”.

Public Comment

Bennett Orr, commercial fisherman, addressed the two day mini-season. He described community-based attempts at public education following on from the inception of mini-season in 1975, and concluded that there is no widespread legal deterrent to prevent infractions of existing law.

Bill Wickers asked if any progress is being made concerning funding for waste water projects. He also addressed the environmental damage caused by participants in the two-day lobster mini-season, and proposed that it be abolished. Discussion followed concerning the status of funding for waste water projects in the Keys.

Following Public Comment, attention returned to the panel, where discussion focused on the importance of marine protected areas as a tool to protect resources from the burden of unrestrained public access. Panelists emphasized that the benthos and fish in the water column are inextricably linked.

Two-Day Recreational Diver Lobster Season (Mini-Season)

Billy Causey identified the goal for the Council of preparing recommendations to take to the Florida Fish and Wildlife Commissioners at their November meeting at Hawk's Cay concerning the mini-season. Chair Neugent observed that the FWC has held Keys-wide meetings soliciting input from Keys residents on the mini-season, with the implicit understanding that commissioners recognized that there are problems, and that a number of citizens have already collectively presented commissioners with suggested solutions to some of the problems. Ms. Klingener noted that the SAC has already openly debated the mini-season and adopted a position. Ms. Harrison, seconded by Dr. Shaw for discussion purposes, moved that the SAC put forward the same decisions taken at the August 2001 meeting and also moved that the recommendations of the coalition of County and municipal governments be taken by the Sanctuary Superintendent to the FWC. Discussion followed concerning the need to send a strong and clear message to the FWC.

Greg DiDomenico gave the following as options that commissioners might instruct staff to work on: a lower bag limit; a lower boat limit; a mini-season stamp and enforcement. He indicated a reluctance on the part of FWC to tackle tagging. Bruce Popham

recommende that these issues should be added to Ms, Harrison's recommendations.

Upon invitation by Ken Nedimyer, Jim Bellizi supplied the Village of Islamorada proposals: colored tags, six red and six blue to distinguish each day; a 300 foot buffer zone from developed shoreline; a prohibition on sport diving in hotspots recognized as enforceable by local law enforcement (residential canals, marinas, basins and frontage to improved residential and commercial property). Discussion followed concerning exclusion of trap fishermen from prohibited areas, diverting enforcement officers from resource protection to resolving social conflicts and moving divers from nearshore State waters onto the reef (Federally protected) where the majority of egg-bearing female lobsters are located at the time. After discussion on process, Ms. Harrison withdrew her motions.

Richard Grathwohl recommended that Martin Moe's tagging proposal be taken to the commissioners. Mr. Moe read through and explained his proposal. Tony Iarocci recommended that the SAC request a workshop with the State on the topic, with Dr. Roy Crabtree of FWC present. John Hunt said that he would forward the request to staff. Discussion was held concerning the date, format and location of the workshop prior to the FWC meeting in November. Further discussion refined the issue of allocation as compatible with the FWC agenda.

Adjourned 5:40 p.m.